

<p style="text-align: right;">Page 97</p> <p>1 A The amount of tautness or tightness is dependent on</p> <p>2 the amount of movement and the timing of hooking the</p> <p>3 chain up in the movement of the vessel to time it in</p> <p>4 the period of time when things are relatively stable</p> <p>5 before it starts rolling in the other direction and</p> <p>6 anticipating that the tautness is going to take</p> <p>7 place.</p> <p>8 Q You agree that the boat, it's your testimony that</p> <p>9 the boat, commercial fishing vessel is always</p> <p>10 rolling, correct?</p> <p>11 A To some degree or another there is always roll,</p> <p>12 pitch or movement up and down and side to side,</p> <p>13 that's correct.</p> <p>14 Q Do you know whether the FISHING VESSEL MY WAY was</p> <p>15 heading up into the seas?</p> <p>16 A I don't recall.</p> <p>17 Q Do you know whether at the time of the accident the</p> <p>18 vessel was rolling to port or starboard?</p> <p>19 A At the time that the incident occurred?</p> <p>20 Q Yes.</p> <p>21 A At the exact time the incident occurred it's my</p> <p>22 opinion and belief that it was rolling to port.</p> <p>23 Q Are you aware of any testimony whatsoever that</p> <p>24 indicates that the vessel was rolling to port?</p>	<p style="text-align: right;">Page 99</p> <p>1 various distances and degrees depends on the</p> <p>2 movement of the boat in a seaway.</p> <p>3 Q I have drawn sort of a view from the bow looking</p> <p>4 through the boat to the stern with a keel, size of</p> <p>5 the boat, and you have got a structure hanging</p> <p>6 overboard, okay, with a pivot, with a hanging point,</p> <p>7 correct?</p> <p>8 A That's a hanging point. Right.</p> <p>9 Q If a fixed load, if I stick a lead weight and I</p> <p>10 chain it to the hanging point, what you are saying</p> <p>11 when the boat rolls, say if this is the bow here and</p> <p>12 that is the stern, if the boat rolls to port, this</p> <p>13 weight would tend to swing outboard?</p> <p>14 A Yes.</p> <p>15 Q If it rolls to starboard, it will swing inboard?</p> <p>16 A Correct.</p> <p>17 Q The higher the hanging point, the greater it's going</p> <p>18 to move?</p> <p>19 A The greater the length of the pendulum will describe</p> <p>20 the horizontal movement of that weight.</p> <p>21 Q But that is true when you have a hanging weight,</p> <p>22 correct?</p> <p>23 A That is what we just said, yes.</p> <p>24 Q If I were to weld on a bracket, come out from the</p>
<p style="text-align: right;">Page 98</p> <p>1 A Well, yes, we just went over that.</p> <p>2 Q Is there any other thing besides that?</p> <p>3 A My experience at sea and ships at sea.</p> <p>4 Q Specifically what experience?</p> <p>5 A Gone to sea as a cadet on all kinds of coast guard</p> <p>6 vessels, and I served six years at sea on three</p> <p>7 coast guard ships in various waters including the</p> <p>8 North Atlantic, the Gulf of Mexico, the Caribbean.</p> <p>9 Q With respect to this dynamic we're talking about,</p> <p>10 first of all we are talking about relative motion,</p> <p>11 not absolute motion, correct?</p> <p>12 A Talking about the motion of ships and the movement</p> <p>13 of weights suspended from lifting points on ships.</p> <p>14 Q And your testimony is that if you have a lifting</p> <p>15 point under which a load is suspended --</p> <p>16 A Over the side of the vessel.</p> <p>17 Q But the bottom of the, but that only applies if the</p> <p>18 load is hanging, correct?</p> <p>19 A Well, as we said, if the load is fixed to the hull</p> <p>20 like a piece of machinery bolted to the deck, then</p> <p>21 the piece of machinery is moving in the same angle</p> <p>22 as the hull. But if you have a fixed object</p> <p>23 suspended from a lifting point, that suspended</p> <p>24 weight from that lifting point moves dynamically and</p>	<p style="text-align: right;">Page 100</p> <p>1 side plating of the boat, put another bracket, get a</p> <p>2 come-along and tighten this thing down, we wouldn't</p> <p>3 get any of that, would we, any movement?</p> <p>4 A Well, you are stopping the movement. You are</p> <p>5 creating an opposing force that prevents the</p> <p>6 horizontal movement out of a suspended weight so it</p> <p>7 becomes fixed to the fixed object.</p> <p>8 Q You would agree with me that the door is not just a</p> <p>9 hanging weight, it will freely swing?</p> <p>10 A Let's back up a little bit. The horizontal line</p> <p>11 that you drew is that a solid rod --</p> <p>12 Q I meant a solid rod when I did it.</p> <p>13 A That's a solid rod, right.</p> <p>14 Q Getting back to the situation involving Aguiar, the</p> <p>15 door is not just a hanging load off of the gallus</p> <p>16 frame, correct?</p> <p>17 A Well, by your own diagram if you look at this and</p> <p>18 take away this solid rod and you look at this load</p> <p>19 that is hanging and this is in a vertical position,</p> <p>20 everything is stable, center of gravity is down</p> <p>21 through the center of the boat, this is hanging</p> <p>22 vertically to, with the center with gravity, if this</p> <p>23 boat rolls down this way, this object then swings</p> <p>24 out this way but the side of the boat is not just</p>

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<p style="text-align: right;">Page 101</p> <p>1 pivoting around the center, it's also sliding down</p> <p>2 and rolling down so this object here will be closer</p> <p>3 to the surface of the water. That's the motion</p> <p>4 we're talking about.</p> <p>5 Q Okay. But --</p> <p>6 A If it's close to the water before the, when the</p> <p>7 vessel starts to roll or affects a roll, it could</p> <p>8 actually dip into the water.</p> <p>9 Q Correct. And if you were in the water --</p> <p>10 A If you were sitting in a boat underneath it --</p> <p>11 Q It would look like it dropped?</p> <p>12 A -- you would see it coming down on you.</p> <p>13 Q If you were standing next to it, you are rolling</p> <p>14 toward the water, it's rolling toward the water --</p> <p>15 A If you are standing on the deck of the boat?</p> <p>16 Q If you are standing on the deck of the boat like Mr.</p> <p>17 Aguiar was --</p> <p>18 A This distance, let's say this distance was only two</p> <p>19 feet and at the time the boat started to roll or it</p> <p>20 was in the process of rolling, this distance here</p> <p>21 becomes longer.</p> <p>22 Q True. If it's free swinging.</p> <p>23 A Yes.</p> <p>24 Q Is it your opinion that the door was free swinging?</p>	<p style="text-align: right;">Page 103</p> <p>1 A I don't recall.</p> <p>2 Q You would agree if you head into the sea, the</p> <p>3 movement of the vessel is going to be predominantly</p> <p>4 pitch?</p> <p>5 A If you are heading into a sea, you are going to have</p> <p>6 pitch and you and rolling.</p> <p>7 Q You also have pitch, yaw and roll?</p> <p>8 A Correct. If you are heading into the sea, you are</p> <p>9 going to have more pitch than if you are heading</p> <p>10 beam to the sea. If you are heading stern to the</p> <p>11 sea, you will have pitch and yaw and roll, too.</p> <p>12 It's all different.</p> <p>13 Q You are always going to have some movement?</p> <p>14 A Always going to have dynamic movement.</p> <p>15 Q But some of that movement may be imperceptible,</p> <p>16 correct?</p> <p>17 A Well, some of that movement is imperceptible. Some</p> <p>18 of it you become used to because you develop your</p> <p>19 sea legs; and if you don't develop sea legs and you</p> <p>20 gain your equilibrium, you get sea sick.</p> <p>21 Q What is your opinion as to what occurred in this</p> <p>22 Aguiar case?</p> <p>23 A Again I'll repeat my opinion. As he was placing the</p> <p>24 safety hook around the chain on the door to stop it</p>
<p style="text-align: right;">Page 102</p> <p>1 A Well, yes.</p> <p>2 Q What about the bag?</p> <p>3 A The bag is on the stern of the boat connected to the</p> <p>4 door at the stern and the door is suspended from the</p> <p>5 pendulum so there is still movement of the door</p> <p>6 because there is nothing fixed. It's all on chains</p> <p>7 and wire ropes. There is nothing that is a solid</p> <p>8 rod that you built into this model. Everything is</p> <p>9 free to move and it's only restricted when it moves</p> <p>10 to the travel of the wire that it's attached to. So</p> <p>11 if he had hooked, if he had been successful in</p> <p>12 hooking the chain to that door, it would have</p> <p>13 prevented the door from swinging outboard by the</p> <p>14 length of the chain.</p> <p>15 Q Is it your opinion that in a calm seas, that the</p> <p>16 safety chain on the FISHING VESSEL MY WAY is going</p> <p>17 to be constantly periodically tightened?</p> <p>18 A Depending on the amount of movement of the vessel.</p> <p>19 Q Do you know what the sea state was at the time of</p> <p>20 the accident?</p> <p>21 A No, I don't know the exact sea state. They</p> <p>22 described it as good weather, calm.</p> <p>23 Q Calm. Okay. Do you know if they are heading into</p> <p>24 the sea or side to the sea?</p>	<p style="text-align: right;">Page 104</p> <p>1 from moving away from the vessel to secure it</p> <p>2 better, the distance between the side of the boat</p> <p>3 where he was standing and the chain on the door</p> <p>4 which he was trying to attach the safety chain</p> <p>5 became greater. And his hand was around the pelican</p> <p>6 hook, he didn't have the securing ring over the</p> <p>7 pelican hook and when it became taught, the bottom</p> <p>8 part of the hook snapped open and hit his finger.</p> <p>9 Q So the cause of the tightening of the safety chain</p> <p>10 in your opinion had to do with the rolling of the</p> <p>11 boat?</p> <p>12 A The rolling of the boat and the fact that he didn't</p> <p>13 act fast enough to get the or couldn't, not that he</p> <p>14 didn't intentionally, but he was not able to fast</p> <p>15 enough put the safety hook, safety ring over the</p> <p>16 stop ring over the pelican hook to prevent it from</p> <p>17 opening, and it became taught quickly beyond his</p> <p>18 estimation of how much time he had to perform that</p> <p>19 task.</p> <p>20 Q In your affidavit, show me where in your affidavit</p> <p>21 you explain this theory that the rolling of the boat</p> <p>22 caused the chain to tighten up.</p> <p>23 A Paragraph 7 pretty much describes what we're talking</p> <p>24 about here. Paragraph 8 describes that. That is</p>

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<p style="text-align: right;">Page 105</p> <p>1 basically what we're saying in those two paragraphs.</p> <p>2 Q Is your opinion that given the sea state that they</p> <p>3 were in on the FISHING VESSEL MY WAY, that when</p> <p>4 hooking up the safety chain, that safety chain would</p> <p>5 periodically tighten up such as to pull the pelican</p> <p>6 open?</p> <p>7 A Yes, at a certain point if the timing isn't right,</p> <p>8 that is doing to happen depending how much movement</p> <p>9 there is on the boat.</p> <p>10 Q I'm talking about in the sea state present at the</p> <p>11 time of Mr. Aguiar's accident. Is it your opinion</p> <p>12 that given that sea state, that that safety chain</p> <p>13 will tighten up periodically such that it opens the</p> <p>14 pelican hook up? Is that your opinion?</p> <p>15 A It is my opinion that that's what happened.</p> <p>16 MR. REGAN: Objection to form. Go ahead.</p> <p>17 Q Is it your opinion that that would happen</p> <p>18 regularly --</p> <p>19 MR. REGAN: Objection.</p> <p>20 Q -- every time the FISHING VESSEL MY WAY is in the</p> <p>21 same sea state that was present at the time of</p> <p>22 Mr. Aguiar's accident?</p> <p>23 A It's my opinion that any time you are handling</p> <p>24 weights, chains, anything like that, you have to be</p>	<p style="text-align: right;">Page 107</p> <p>1 load should not move so you won't have that dynamic</p> <p>2 occurrence that occurs in a seaway.</p> <p>3 Q You would agree with me that the amount of movement</p> <p>4 of a hanging load is a function of the amount of</p> <p>5 movement of the vessel, correct?</p> <p>6 A Yes, that's one of the factors affecting a movement</p> <p>7 of a suspended load.</p> <p>8 Q And the amount of movement of the vessel is a</p> <p>9 function of the sea state?</p> <p>10 A In part.</p> <p>11 Q What are the other parts?</p> <p>12 A The wind, the liquid load in the vessel. The amount</p> <p>13 of cargo, a number of factors that would affect the</p> <p>14 amount of movement of a vessel in a seaway, not just</p> <p>15 the seaway but the vessel itself, its loading</p> <p>16 condition.</p> <p>17 Q Given a stacked vessel in terms of configuration and</p> <p>18 loading and so forth, that the sea state is the most</p> <p>19 significant determinant of the movement of the</p> <p>20 vessel.</p> <p>21 A That is a major factor, yes.</p> <p>22 Q And that just generally speaking, and we're talking</p> <p>23 about movement of suspended loads, okay, movement of</p> <p>24 suspended loads, speaking just generally, the</p>
<p style="text-align: right;">Page 106</p> <p>1 extremely careful and be alert to the hazards that</p> <p>2 you are going to encounter, and that is one of them.</p> <p>3 That is a common occurrence that they have to be</p> <p>4 aware of, and I believe he stated that.</p> <p>5 Q Your statement is it is a common occurrence?</p> <p>6 A For chains, for wires and chains in moving objects,</p> <p>7 heavy suspended weights, that can happen and will</p> <p>8 happen, and it's a safety hazard that seamen have to</p> <p>9 be aware of. I think I said that. It is a common</p> <p>10 occurrence and a common --</p> <p>11 Q Let me ask you this: The amount of movement of the</p> <p>12 door is a function of how much the boat is rolling,</p> <p>13 correct?</p> <p>14 A Or pitching or moving. The total sum of all the</p> <p>15 movements will result in the suspended weight moving</p> <p>16 regularly, not staying in a fixed in space.</p> <p>17 Q And the magnitude of that movement is a function of</p> <p>18 the sea state, correct?</p> <p>19 A Basically speaking, yes. If you were on shore in a</p> <p>20 drydock and the vessel was not moving, then that</p> <p>21 load is fixed in space and it's not moving unless</p> <p>22 wind is blowing on it unless there is another force</p> <p>23 acting on that that causes it to move. If you are</p> <p>24 on a stable platform on this table, that suspended</p>	<p style="text-align: right;">Page 108</p> <p>1 rougher it is in general, the more the loads are</p> <p>2 going to move?</p> <p>3 A The rougher it is, the windier it is, the longer the</p> <p>4 length of the pendulum, all of those factors play</p> <p>5 into the amount of movement of the suspended load.</p> <p>6 Q What is your opinion as to how much the door moved</p> <p>7 relative to the, how much will the door move</p> <p>8 relative to the safety chain given the sea</p> <p>9 conditions that were present at the time of</p> <p>10 Mr. Aguiar's accident?</p> <p>11 MR. REGAN: Objection to form.</p> <p>12 A The only testimony to the effect or the estimated</p> <p>13 amount of movement was about four or five inches.</p> <p>14 Q Who said four or five inches?</p> <p>15 A I believe it was Mr. Aguiar himself.</p> <p>16 Q Let me ask you this: When you formed your opinion,</p> <p>17 did you base it upon the assumption that the door</p> <p>18 moved only four to five inches?</p> <p>19 A No. The amount of movement four or five inches, ten</p> <p>20 inches, 12 inches is not an important element. The</p> <p>21 important element is that the chain became taught.</p> <p>22 He observed relative movement of the door, the chain</p> <p>23 became taught, the hook snapped open and hit him in</p> <p>24 the finger. It's simple.</p>

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